

IN THE CLAIMS

Please cancel claims 1-3, 5-7, 9-11, 13-15, 17-19, 21-23, 25-27, 29-31, 33-35, and 37-39 as indicated below . The following listing of the claims is provided in accordance with 37 C.F.R. §1.121.

1.-3. (Canceled)

4. (Original) An imaging system, comprising:

means for acquiring a set of motion data for two or more organs from at least one of one or more types of electrical sensors and one or more types of non-electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points; and

means for processing a portion of the set of image data based upon the two or more retrospective gating points.

5.-7. (Canceled)

8. (Previously presented) An imaging system, comprising:

means for acquiring a set of motion data for two or more organs from at least one of one or more types of electrical sensors and one or more types of non-electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;

means for initiating and terminating the acquisition of a set of image data representative of the organ of interest based on the two or more prospective gating points;
means for reconstructing the set of image data to generate a set of reconstructed data; and
means for processing a portion of the set of reconstructed data based upon the two or more retrospective gating points.

9.-11. (Canceled)

12. (Previously presented) An imaging system, comprising:

means for acquiring a set of motion data for an organ from at least one or more non-electrical sensors;
means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;
means for initiating and terminating the acquisition of a set of image data representative of the organ of interest based on the two or more prospective gating points;
and
means for processing a portion of the set of image data based upon the two or more retrospective gating points.

13.-15. (Canceled)

16. (Original) An imaging system, comprising:

means for acquiring a set of motion data for an organ of interest from at least one or more non-electrical sensors;
means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for the organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points;

means for reconstructing the set of image data to generate a set of reconstructed data; and

means for processing a portion of the set of reconstructed data based upon the two or more retrospective gating points.

17.-19. (Canceled)

20. (Previously presented) An imaging system, comprising:

means for acquiring a set of motion data for a respiratory organ of interest from at least one or more electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for the respiratory organ of interest;

means for initiating and terminating the acquisition of a set of image data representative of the respiratory organ of interest based on the two or more prospective gating points; and

means for processing a portion of the set of image data based upon the two or more retrospective gating points.

21.-23. (Canceled)

24. (Original) An imaging system, comprising:

means for acquiring a set of motion data for a respiratory organ of interest from at least one or more electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for the respiratory organ of interest;

means for acquiring a set of image data representative of the respiratory organ of interest using the two or more prospective gating points;

means for reconstructing the set of image data to generate a set of reconstructed data; and

means for processing a portion of the set of reconstructed data based upon the two or more retrospective gating points.

25.-27. (Canceled)

28. (Original) An imaging system, comprising:

means for acquiring a set of motion data for an organ from one or more non-electrical sensors and one or more electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points; and

means for processing a portion of the set of image data based upon the two or more retrospective gating points.

29.-31. (Canceled)

32. (Original) An imaging system, comprising:

means for acquiring a set of motion data for an organ of interest from one or more non-electrical sensors one or more electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for the organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points;

means for reconstructing the set of image data to generate a set of reconstructed data; and

means for processing a portion of the set of reconstructed data based upon the two or more retrospective gating points.

33.-35. (Canceled)

36. (Original) An imaging system, comprising:

means for acquiring a set of motion data for one or more organs from at least one of one or more types of electrical sensors and one or more types of non-electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points;

means for processing a portion of the set of image data based upon the two or more retrospective gating points; and

means for compensating for motion in the portion of the set of image data based upon a set of motion compensation factors derived from one or more pre-acquisition images.

37.-39. (Canceled)

40. (Original) An imaging system, comprising:

means for acquiring a set of motion data for one or more organs from at least one of one or more types of electrical sensors and one or more types of non-electrical sensors;

means for processing the set of motion data to extract two or more prospective gating points and two or more retrospective gating points for an organ of interest;

means for acquiring a set of image data representative of the organ of interest using the two or more prospective gating points;

means for reconstructing the set of image data to generate a set of reconstructed data;

means for processing a portion of the set of reconstructed data based upon the two or more retrospective gating points; and

means for compensating for motion in the portion of the set of reconstructed data based upon a set of motion compensation factors derived from one or more pre-acquisition images.